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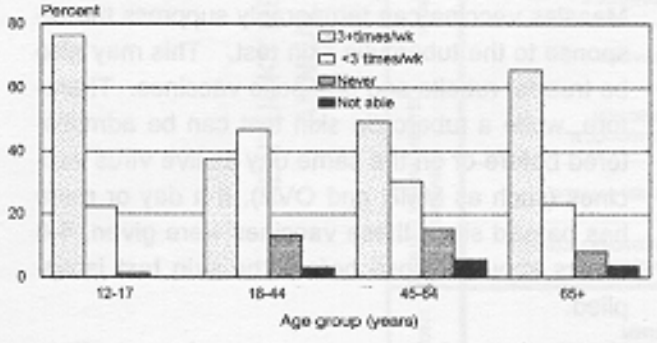
Insights from K.H.I.E.S. - - Physical Activity

Epidemiologic and clinical studies have established the benefits of aerobic physical activity. Persons who do not exercise are at higher risk for death from coronary heart disease than are those who exercise regularly.[1] Individuals who do not engage in physical activity for twenty minutes or more at least three times a week are considered to be sedentary.

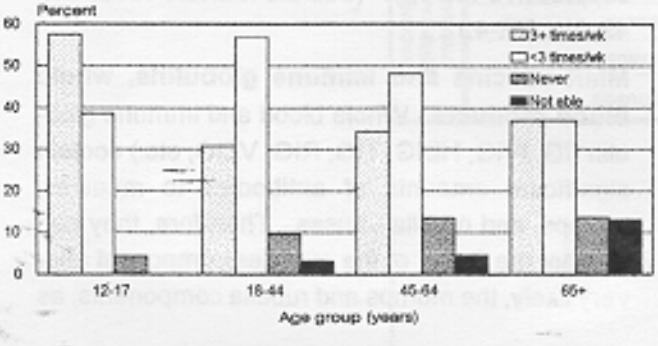
Inside This Issue

One of the goals of *Healthy Kentuckians 2000* is to increase to at least 50% the proportion of Kentuckians 18 and over who are not sedentary. Results from the *Kentucky Health Interview and Examination Survey* (KHIES)[2] show that only in males ages 65 and over is this happening now. Many Kentuckians need to increase physical activity.

Exercise frequency for males, by age group, KHIES clinical survey, 1993.



Exercise frequency for females, by age group, KHIES clinical survey, 1993.



Percentage of adults 18 years or older who exercise at least three times per week, by gender and education level, KHIES clinical survey, 1993.

Education level	Gender	
	Male	Female
Not completed high school	42.1	30.5
High school diploma	44.3	33.6
Some college	44.6	31.3
College or above	48.6	35.3

Factors associated with inactivity include: lack of knowledge of the benefits of exercising, obesity, the perception or poor health, lack of time and inconvenience of activities, and aversion to exercise.[3] Health promotion efforts may consider worksite-based programs, school programs for students, faculty, and staff, and community campaigns focusing on the benefits of physical exercise.

References:

1 American Heart Association. 1992 Heart and stroke facts. Dallas: American Heart Association, 1991.
2 Kentucky Health Interview and Examination Survey published by the Department for Health Services June, 1995; copies available on request.
3 King AC, Bild SN, Bild DE, et al. Determinants of physical activity and interventions in adults. Med Sci Sports Exerc 1992;24(suppl):221S-36S.

Tips on Vaccine Administration

This article is presented in response to questions received by the Immunization Program. Except where otherwise specified, recommendations are those of the United States Public Health Services Advisory Committee on Immunization Practices-ACIP (MMWR 1994; 43/No. RR-1), the American Academy of Pediatrics Committee on Infectious Diseases-AAP (1994 Red Book, AAP, Elk Grove, Village, IL 1994) and the American College of Physicians-ACP (Guide for Adult Immunization, 3rd Edition, ACP, Philadelphia; 1994). Where differences exist in recommendations of these groups, the ACIP recommendations have been selected. Where differences exist between ACI-AAP-ACP recommendations and recommendations found in the vaccine manufacturer's package inserts, the ACIP-AAP-ACP recommendations are followed.

In the past, considerable concern existed over possible "interference" that might occur when different vaccines, or combinations of vaccines and other agents, are given to the same person either simultaneously or within a few days or weeks of each other. Most of this concern has proven to be unfounded. The ACIP now states that all standard vaccines recommended for all children and adults in the United States can be given to the same person--at separate anatomic sites--on the same day, 1-2 days apart or one week apart, with no risk of interference of one vaccine by the other or of potentiation of adverse effects. The same is true for administering vaccines to a person taking most other medications (e.g., antibiotics). A few exceptions or special considerations exist:

1 **Maximum number of vaccines that can be given simultaneously.** No absolute limit exists, as long as different vaccines are given at separate anatomic sites. Two injections can even be given in the same muscles as long as they are at least 1 to 2 inches apart; OPV, DTP/DTaP, MMR, hepatitis B, and Hib vaccines can be given simultaneously, as can Td, influenza, and pneumococcal vaccines. A former recommendation that DTP (or DTaP) and influenza vaccines be given at least 3 days apart has been dropped. However, only in the following instance can different vaccines be administered together, in the same syringe: Connaught's DTP vaccine can be used to reconstitute Connaught's ActHIB or SmithKline's OmniHIB vaccines.

2 **Different live virus vaccines.** The ACIP advises that no timing restrictions exist between MMR and OPV. Yellow fever vaccine can be administered on the same day as OPV and/or MMR. However, if not given on the same day, there should be at least a 4 week interval between MMR and/or OPV and yellow fever vaccine administration.

3 **Live oral typhoid vaccine.** No valid timing restrictions exist between this vaccine and other vaccines, including live virus vaccines. Live oral typhoid vaccine should not be given within 24 hours following receipt of antibiotics or sulfonamides or antimalarial mefloquine. However, there are no timing restrictions between administration of this vaccine and chloroquine.

4 **Tuberculin/PPD skin testing and MMR vaccine.** Measles vaccine can temporarily suppress the response to the tuberculin skin test. This may also be true for rubella and oral polio vaccines. Therefore, while a tuberculin skin test can be administered before or on the same day as live virus vaccines (such as MMR and OVP), if a day or more has passed since these vaccines were given, 4-6 weeks should elapse before the skin test is applied.

5 **Vaccines and immunosuppressive medications.** A number of special recommendations and restrictions apply in administering vaccines, particularly live vaccines, to persons receiving immunosuppressive therapy. (See the *MMWR* 1993; Vol. 42, No. RR-4.)

6 **MMR vaccine and immune globulins, whole blood products.** Whole blood and immune globulin (IG, IVIG, HBIG, TIG, RIG, VZIG, etc.) contain significant amounts of antibodies to measles, mumps, and rubella viruses. Therefore, they can prevent the "take" of the measles component and, very likely, the mumps and rubella components, as

well. MMR should be given at least 2 weeks before or at least 3 months after receipt of immune globulin preparations. Even longer time intervals are recommended when MMR follows some other preparations. However, if a person needs blood or an immune globulin preparation and at the same time, needs prompt protection against 1 or more of these 3 diseases, MMR vaccine should be given promptly. The immunization can be repeated after the appropriate time intervals to ensure protection. Blood and immune globulin preparations do not interfere significantly with other live vaccines or with inactivated vaccines.

7 **Intradermal (ID) rabies vaccine and chloroquine/hydro-chloroquine administration for malaria prophylaxis.** Chloroquine and hydroxychloroquine may interfere with pre-exposure rabies immunization when rabies vaccine is given in the 0.1 ml intradermal dose. Therefore, rabies pre-exposure prophylaxis using the intradermal route for vaccine administration should be completed before malaria prophylaxis with these agents begins. If this is not possible, the 1.0 ml dose of rabies vaccine should be given intramuscularly instead.

8 **Yellow fever and cholera vaccines.** When these vaccines are given simultaneously or only a few days apart, somewhat lower antibody levels may result, though no evidence indicates that actual protection is diminished. Ideally, these should be given at least 3 weeks apart. If time does not permit this, they can be given simultaneously; alternatively, cholera vaccine could be omitted because of its limited effectiveness.

Questions related to vaccine preventable diseases or vaccine administration should be directed to the Communicable Disease Branch, Immunization Program at (502) 564-4478.

World Health Organization Consultation on Public Health Issues Related to Bovine Spongiform Encephalopathy and the Emergence of a New Variant of Creutzfeldt-Jakob Disease

The following article is adapted from MMWR, April 12, 1996 / Vol. 45 / No. 14.

At a World Health Organization (WHO) Consultation organized in Geneva on April 2-3, 1996, a group of international experts reviewed the public health issues related to bovine spongiform encephalopathy (BSE) and the emergence of a new variant of Creutzfeldt-Jakob Disease (V-CJD), as officially reported by the United Kingdom on March 20, 1996.

The Consultation made recommendations, based on the latest scientific information, to minimize transmission of BSE among animals and to reduce as completely as possible any exposure of humans to the BSE agent.

FINDINGS

Bovine Spongiform Encephalopathy

BSE is a transmissible spongiform encephalopathy (TSE) in cattle, which was first identified in the United Kingdom in 1986. It is one of a group of similar degenerative diseases that occur in several animal species. Transmission of BSE to cattle appears to have occurred by contaminated meat and bone meal in concentrate feed, sheep or cattle being the original source. The United Kingdom is the only country with a high incidence of the disease, and the epidemic there appears to have been due mainly to recycling of affected bovine material back to cattle before the ruminant (cattle, sheep, and goats) feed ban in July 1988 took effect. There is no evidence of either maternal or horizontal transmission of BSE.

The incidence of the disease is declining significantly in the United Kingdom, although the measures introduced have not thus far halted the epidemic. The worldwide distribution of BSE is not known precisely, but it has been reported at a much lower incidence in native cattle in other European countries than in the United Kingdom. In these former countries only part of the BSE cases could be related to consumption of feed that might have been contaminated with the BSE agent.

Variant of Creutzfeldt-Jakob Disease

The group reviewed the clinical and pathologic data from the 10 cases in the United Kingdom. The disease has occurred at younger ages than is usual for classical CJD and shows several clinical and pathologic differences. Based on findings in these 10 cases, the group established a case definition to facilitate better surveillance, which is necessary to determine the incidence and distribution of this syndrome.

The group concluded that there is no definite link between BSE and V-CJD but that circumstantial evidence suggests exposure to BSE may be the most likely explanation. Further research on both diseases is urgently required.

In the United States, the U.S. Department of Agriculture (USDA) has conducted active surveillance for BSE in cattle since 1990 and has not detected any cases. Nonetheless, because of the concern that V-CJD in the United Kingdom might possibly be linked to BSE, additional safety measures are being instituted, including discontinuation of the use of ruminant tissue in ruminant feeds.

CDC conducts surveillance for CJD through examination of death certificate data for U.S. residents for whom CJD was listed as one of the multiple causes of death.[1] Based on this surveillance, during 1979-1993, the annual incidence of CJD remained stable at approximately one case per million persons. In the United Kingdom, five of eight patients who died with V-CJD since May 1995 were aged <30 years; in comparison, in the United States, CJD deaths in this age group remain extremely rare (<5 cases per billion per year).

CDC is working with the Council of State and Territorial Epidemiologists to consider expansion of current CJD surveillance. On April 8, an interagency meeting including representatives from CDC, the National Institutes of Health, the Food and Drug Administration, USDA, and the U.S. Department of Defense was held to disseminate conclusions from the WHO consultation and to coordinate preventive activities for BSE and CJD. CDC is working with its four established Emerging Infections Disease Programs (Minnesota; Oregon; New Haven, Connecticut; and the San Francisco Bay area, California), the Georgia Department of Human Resources, and the Atlanta Metropolitan Active Surveillance Program to pilot enhanced surveillance efforts for CJD, including an active search for V-CJD as described in the United Kingdom.[2]

References:

1 Holman RC, Khan AS, Kent J, Strine TW, Schonberger LB. Epidemiology of Creutzfeldt-Jakob disease in the United States, 1979-1990; analysis of national mortality data. Neuroepidemiology 1995; 14:174- 81.

2 Will RG, Ironside JW, Zeibler M, et al. A new variant of Creutzfeldt-Jakob disease in the UK. Lancet 1996;347-921-5.

EMERGENCY CONSULTATION

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KENTUCKY REPORTABLE DISEASES
ANNUAL SUMMARY - 1995

1995	VACCINE PREVENTABLE DISEASES					TUBERCULOSIS		SEXUALLY TRANSMITTED DISEASES			VIRAL HEPATITIS				ENTERIC DISEASES			CNS DISEASES					OTHER DISEASES							
	PERTUSSIS	TETANUS	MEASLES	MUMPS	RUBELLA	PULMONARY	OTHER	PRIMARY AND SECONDARY SYPHILIS	OTHER SYPHILIS	GONOCOCCAL INFECTION	HEPATITIS A	HEPATITIS B	HEPATITIS NON-A NON-B	HEPATITIS C	SALMONELLOSIS	SHIGELLOSIS	CAMPYLOBACTERIOSIS	H. Influenzae INFECTIONS	MENINGOCOCCAL INFECTIONS	OTHER BACTERIAL MENINGITIS	ASEPTIC MENINGITIS	ENCEPHALITIS	AIDS (BY YEAR OF REPORT)	*CHICKENPOX	ROCKY MOUNTAIN SPOTTED FEVER	LYME DISEASE	MALARIA	LEGIONELLOSIS	TYPHOID	ANIMAL RABIES
CUMULATIVE TOTAL - 1995	26					298	29	185	317	4760	44	69	16	18	438	332	316	4	51	139	219	25	293	808	16	15	3	10		28
CUMULATIVE TOTAL - 1994	60					309	38	208	326	5127	221	78	32	NA	380	208	271	4	42	95	181	18	300	984	10	24	12	9	1	29
DISTRICT 1						12	4	6	10	254	1	1	2	3	31	16	22			4	16		3	6		2				
DISTRICT 2						8	1	1	6	443		3		1	36	80	11		2	1	13	2	13	40	1	2				2
DISTRICT 3						6	2		2	156		9	2	1	22	73	27		4	3	14	1	7	11	1					2
DISTRICT 4						33	4	1	6	279	4	4		2	23	6	17		1	4	4	6	5	2	1					7
DISTRICT 5	1					21			11	222	1	6		1	21	17	21		6	6	8	1	9	288	5	6	1	1		6
DISTRICT 6	13					72	7	128	151	2601	11	25	11	3	86	18	65		8	64	78	4	136	148	3		1	5		1
DISTRICT 7	8					9	2	5	10	219	10	5		5	48	57	58	1	9	27	59	6	35	11	1	1		1		
DISTRICT 8	1					6			1	10	1	1			5	1	3			1			1					1		
DISTRICT 9						11	1		1	7					2	3	4		2	3			4	28		1				
DISTRICT 10						11			10	29	1				20	1	1			1	1	1	3	2						2
DISTRICT 11						17	1		2	16	1	1		1	11		8	1	1	3	1		2	40						
DISTRICT 12						11	1	2	2	6		4			7	2	6		6	1	2	1	4	57						
DISTRICT 13						4			7	34	1		1	1	11	10	2	1		4	4	2	4	88	1					1
DISTRICT 14	1					23	1		2	39	1	1			17	3	8	1		6	3	1	4	25	1	2				1
DISTRICT 15	2					54	5	43	96	545	12	9			98	48	63		12	10	16		63	63	1	1	1	2		6

*After consulting with the Centers for Disease Control and Prevention, and pursuant to new strategies with surveillance, routine counts of Chickenpox will no longer be tabulated, as of March 31, 1996.